



EFW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Eduardo Luis SALVA CALCAGNO

Serial No.: 10/584931

Filed: July 5, 2006

For: PROCEDURE AND MULTI-KEY CARD  
TO AVOID INTERNET FRAUD

**TRANSMITTAL LETTER**

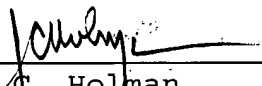
Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In order to complete the record in the above-captioned, kindly place a copy of International Preliminary Report on Patentability just received from the PCT in this application.

Respectfully submitted,  
JACOBSON HOLMAN PLLC

By:

  
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Atty. Dkt. No.: P70495US0  
Date: November 3, 2006

Enclosure: Copy IPER

**PATENT COOPERATION TREATY**

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
JOHN CLARKE HOLMAN  
JACOBSON HOLMAN PLLC  
400 SEVENTH STREET, N.W.  
WASHINGTON, DC 20004

**PCT**

NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Rule 71.1)

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

P70495WO0

**IMPORTANT NOTIFICATION**

International application No.

PCT/US05/00068

International filing date (day/month/year)

05 January 2005 (05.01.2005)

Priority date (day/month/year)

05 January 2004 (05.01.2004)

Applicant

EDUARDO L SALVA CALCAGNO

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the *PCT Applicant's Guide*.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the IPEA/ US

Mail Stop PCT, Attn: IPEA/US  
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Authorized officer

Ayaz Sheikh

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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
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JACOBSON HOLMAN PLLC  
400 SEVENTH STREET, N.W.  
WASHINGTON, DC 20004

## PCT

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REPORT ON PATENTABILITY  
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(PCT Rule 71.1)

Date of mailing  
(day/month/year) 25 OCT 2006

Applicant's or agent's file reference

P70495WO0

### IMPORTANT NOTIFICATION

International application No.

International filing date (day/month/year)

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PCT/US05/00068

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Form PCT/IPEA/416 (January 2004)

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P70495WO0	FOR FURTHER ACTION <span style="float: right;">See Form PCT/IPEA/416</span>																									
International application No. PCT/US05/00068	International filing date ( <i>day/month/year</i> ) 05 January 2005 (05.01.2005)	Priority date ( <i>day/month/year</i> ) 05 January 2004 (05.01.2004)																								
International Patent Classification (IPC) or national classification and IPC IPC: H04K 1/00, H04L 9/00 USPC: 726/9, 713/185																										
Applicant EDUARDO L SALVA CALCAGNO																										
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>18</u> sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																										
<p>4. This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 20%;">Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>			<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand 23 February 2006 (23.02.2006)	Date of completion of this report 03 October 2006 (03.10.2006)																									
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Ayaz Sheikh Telephone No. (703)305-3900																									

Form PCT/IPEA/409 (cover sheet)(April 2005)

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US05/00068

## Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:  
 pages 1,3-22 and 24 as originally filed/furnished  
 pages\* NONE received by this Authority on \_\_\_\_\_  
 pages\* 2 and 23 received by this Authority on 23 February 2006 (23.02.2006)
- ☒ the claims:  
 pages NONE as originally filed/furnished  
 pages\* NONE as amended (together with any statement) under Article 19  
 pages\* NONE received by this Authority on \_\_\_\_\_  
 pages\* 25-29 received by this Authority on 23 February 2006 (23.02.2006)
- ☒ the drawings:  
 pages NONE as originally filed/furnished  
 pages\* NONE received by this Authority on \_\_\_\_\_  
 pages\* 1/11-11/11 received by this Authority on 23 February 2006 (23.02.2006)
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/US05/00068

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1-10</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-10</u>	NO
Industrial Applicability (IA)	Claims <u>1-10</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)

Claims 1-10 lack an inventive step under PCT Article 33(3) as being obvious over US 2004/0002903 to Stolfo et al., hereinafter Stolfo, in view of US 2002/0099649 to Lee et al., hereinafter Lee. Stolfo discloses verifying the business with an authorization center and the transaction process that occurs throughout the process. Lee discloses the use of multiple keys to identify a user in a business transaction. It would have been obvious at the time the invention was made to include the multiple keys of Lee in the card transaction process of Stolfo, since Lee states at paragraph [0045] that while no one key is entirely reliable, the use of multiple keys provides a probabilistic identification, thereby providing a more likely chance that the user seeking identification is who they claim to be.

In spite of the few cases of computer fraud reported each year in relation to the enormous amount of real crimes committed, losses are estimated to account for as much as 2 dollars of every \$1000 of products paid for.

5 It is worthwhile to make a brief review of the present function of the Internet to point out its weaknesses.

The basic idea of the Internet is that two computers remote from each other can establish communications, taking advantage of a physical support system. The telephone pair and the cable-modem  
10 are among the best-known adjuncts that presently supply communication linkages by means of the Internet.

In addition to physical support, there is a communications protocol, which allows all computers to "understand" each other through servers, which are large CPUs that serve a portfolio of clients to  
15 whom they provide electronic mail addresses or a space on the web, in addition to FTP or chat services, for example.

After the servers come the connection nodes or routers, which facilitate the "jumps" to be carried out until the destination is reached. These routers are systems that guide our data toward its  
20 predetermined address. As in the case of telephone numbers, each web page has a numeric assignment as an electronic address (IP), which is essential to track the connection nodes necessary. Then, the pages are read by means of a navigator installed in our computer that is capable of dialing the IP address, capable of supporting the  
25 specific protocol and of interpreting IP responses, which identify the place.

- The implementation of the procedure proposed will undoubtedly redound to greater confidence in the Web to operate on the Internet.

5 With respect to operating systems, the client can choose the operating system that he prefers in each one of the hosting security plan, they are Linux and Windows 2000 Server.

Servers based on Linux utilize the Apache Web server and provide the possibility of executing scripts in Perl, Pitón and PHP4, in  
10 addition to access to MySQL databases.

Windows servers incorporate the Internet Information Server and can host dynamic Web Sites utilizing ASP pages in Visual Basic Script with access to databases Access or SQL Server.

The hardware utilized in the two types of servers is IBM X330.

15

In summary, the procedure claimed provides the necessary requirements of patentability, in addition to not being included in the patentability exceptions specific to the patent law, since it deals with a series of necessary and consecutive stages to arrive at a final  
20 unpredictable result (not obvious to a person of ordinary skill in the art).

The software provided is not claimed "*per se*," but it forms a part of a conjunction of elements that provide a desired "technical effect," necessary to arrive at the aforementioned final effect and it interacts

AMENDED SHEET



CLAIMS

1. A method to avoid Internet fraud that is carried out by  
5 means of a multi-key card in which a business organization, one  
or more users from the business organization and an  
authorization center interact, the method comprising the  
following steps:
  - requesting the legitimizing of the business organization to  
10 operate with the authorization center;  - checking out the business organization in a database of the  
authorization center, assigning the business organization an  
identification code, said data base being not available on the  
Internet;  - 15 sending a list of the users to the authorization center;  - preparing a registry assigning each user an alias or NICK  
and loading the registry into the database so that the new users  
are accepted;  - requesting a specific number of multi-key cards for users  
20 qualified to operate by means of a note or purchase order;  - generating in the authorization center a set consisting of  
the specific quantity of multi-key cards, assigning a unique  
number to each set and another unique number to each card,  
relating this card number with the user's NICK;

**AMENDED SHEET**

distributing the multi-key cards to the corresponding user personally and the cards including a form that possesses an organic security seal where the user must sign and leave the user's fingerprint;

- 5        updating information for the delivery of cards and returning the information and the form to the authorization center;

qualifying the NICK of the user who has received the multi-key card, thus up-dating the cards qualified; and

- 10       confirming the qualification to the recognized user,  
wherein the method further comprises the following steps to authenticate user identity through a web page:

- entering an official legitimized web page, the business organization requests entry to a portal of the authorization center  
15       by means of a link and, once entered therein, enters the NICK and a PIN of the multi-key card;

- converting via an authorization center network server the NICK and the PIN to a bar code, and sending the bar code to the database of the authorization center, the database being without  
20       an open connection where a laser reader connected to the database reads the data and verifies whether the NICK is authorized, whether the PIN entered belongs to that NICK and whether the PIN entered has not been used before, authorizing the operation if all the verifications are positive or denying the  
25       operation if any of the verifications is negative;

AMENDED SHEET

the server without open connection shows the verification result and sends the result to the network server, where another laser reader connected to the network server reads the verification result, authorizing or denying the user's requested  
5 operation.

2. The method to avoid Internet fraud according to claim 1, characterized in that the following step for the authentication of user identity by means of a call center comprises:

10 requesting legitimization as the user by means of a telephone call to the call center,

in response to the call center operator the user reports the user's NICK and a PIN code from the user's multi-key card, data that will be entered by the operator into the system that makes the  
15 verification of such data available,

the system verifies that the NICK is qualified, that the PIN corresponds to the NICK and that the PIN has not been used, authorizing the operation if all the verifications are positive or denying the authorization if any of the verifications is negative;

20 once the verification has been effected, giving a response to the request for legitimization of identity to the user who requests it by telephone and invalidates further use of the NICK and PIN combination for a future operation.

3. The method to avoid Internet fraud according to claim 1, wherein the PIN entered by the user has limited temporary validity.

5 4. The method to avoid Internet fraud according to claim 1, wherein the PIN entered by the user has a color determined as a function of the category of the user who holds the card.

5. The method to avoid Internet fraud according to claim 1, wherein the step of generating the multi-key cards includes the additional steps of:

generating the cards in sets and assigning to each a unique alphanumeric card code of X characters (numbers, capital letters and/or lower-case letters), the system verifying that there is no identical code in the database that are not available on the network;

generating a random alphanumeric code of variable length that will be utilized as a PIN;

repeating the operation as many times as the multi-key card contains PINs so the system can verify that a PIN is not repeated in the same card;

assigning the user NICK to the code of the multi-key card and keeping the information in the database, thus authorizing this multi-key card.

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6. A multi-key card to avoid Internet fraud to be used in accordance with the method of claim 1, characterized as being of a usual size as that of a magnetic card, having imprinted thereon the user's NICK, a variable series of PINs (alphanumeric codes) hidden by a scratch-off type protective cover, a unique set code identifier issued by the authorization center printer at the time of generating a specific set of cards for the business organization, and a card code identifier consisting of a unique alphanumeric code of X characters which identify that multi-key card, relating the card to the user and to the PINs that the user is authorized to use; as well as that the front of the card may contain space for advertising.

7. The multi-key card according to claim 6, characterized in that the NICK is printed on the multi-key card and hidden by a scratch-off type protective cover.

8. The multi-key card according to claim 6, characterized in that the NICK is printed on a removable plastic strip.

20

9. The multi-key card according to claim 6, characterized in that the multi-key card is wrapped in shrink-seal cellophane.

**AMENDED SHEET**